

New (N):

Ice of the following initial stages of ice formation

Frazil: Separate fine needles or plates suspended in the water

Grease: A thin, soapy-looking surface layer of coagulated frazil ice

Slush: Snow mixed with water in a viscous surface layer

Shuga: An accumulation of spongy white lumps

Nilas (Ni):

A thin, elastic crust of ice, less than 10 cm (4 in) thick, easily bending on waves, often with a striped or chevron appearance.

Young (YN):

Ice 10 - 30 cm (4 - 12 in) thick of the following sub-stages

Gray (G): Young ice 10 - 15 cm (4 - 6 in) thick, less elastic than nilas, that breaks on swell and rafts (one layer over another) under pressure

Gray-white (GW): Young ice 15 - 30 cm (6 - 12 in) thick, that buckles to form ridges on its edges from pressure or collisions

First-year thin (FL):

Sea ice that, in uniform level areas without ridges or other deformations, is 30 - 70 cm (12 - 27 in) thick

First-year medium (FM):

Sea ice 70 - 120 cm (27 - 48 in) thick

First-year thick (FT):

Sea ice over 1.2 m (4 ft) thick

Old or multi-year (MY):

Sea ice 3 m (10 feet) or more thick that has survived at least one melting season, characterized by undulating, weathered ridges and a well-defined melt water drainage pattern

Stages of Development



New Ice

Frazil: Fine needles or plates suspended in the water

Grease: A soapy-looking surface layer of coagulated frazil ice



New Ice

Slush: Snow mixed with water

Shuga: An accumulation of spongy white lumps



Nilas (Ni) A thin, elastic crust of ice, less than 10 cm (4 in) thick, easily bending on waves, often with a striped or chevron appearance



Young (YN) Level ice 10 - 30 cm (4 - 12 in) thick, of the following sub-stages:

Gray (G): Young ice 10 - 15 cm (4 - 6 in) thick, less elastic than nilas, that breaks on swell and rafts under pressure

Gray-white (GW): Young ice 15 - 30 cm (6 - 12 in) thick, which buckles to form ridges on its edges from pressure or collisions

Stages of Development



First-year thin (FL) Sea ice 30 - 70 cm (12 - 27 in) thick



First-year medium (FM) Sea ice 70 - 120 cm (27 - 48 in) thick



First-year thick (FT) Sea ice over 1.2 m (4 ft) thick (Photo provided by Jerry Galt)



Old or Multi-year Sea ice 3 m (10 feet) thick that has survived at least one melting season, characterized by undulating, weathered ridges and a well-defined melt water drainage pattern